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## CORRECTING SCHOOL DISABILITIES IN READING

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If one of the current reading tests is given to the pupils of a grade, Grade VA for illustration, the results will frequently be as follows: six pupils will reach the standard for Grade VIIB; nine, Grade VIA; one, Grade VIB; eight, Grade VB; ten, Grade IVB; and ten will score below the standard for Grade IVB. Under these conditions how can a teacher assign an appropriate lesson or hold the class accountable for VA work, and how can a teacher reasonably be held accountable for adapting work in reading to the needs of individual pupils?

But the situation is not even so simple. Test a given pupil in different kinds of subject-matter and compare his stage of development in speed of oral reading, in following directions, and in comprehending arithmetic problems. It will usually be found that the pupil varies widely in his ability in these different phases of reading.

If the feeble-minded and those handicapped by other conditions and disabilities, such as defective vision and chorea, are eliminated, a careful study of the remaining pupils of a grade will show that 30 to 35 per cent of the pupils are retarded in their development because of failure to "use their minds" in reading. It is probably true that a considerable percentage of the superbright children have formed bad habits of reading because no requirement has been placed upon them for adequate results.

As part of a plan for dealing with children who were failing, an analysis was made recently of school readers. A sample of this analysis appeared in School Publication No. 26 of the Los Angeles City School District (June, 1919). The analysis was in terms of the content of the selections and was used for the purpose of directing the teachers' attention to the content of the books

which were then used. In the same bulletin appeared a general description of the adjustment room plan, which had at that time reached a satisfactory status and seemed worth reporting.

Under the heading "Learning to Study Reading," it was suggested that reading may be analyzed into a number of skills, each requiring a specific mental attitude and leading to a specific mental objective. It was also suggested that the use of practice exercises facilitates the fixing of appropriate reading attitudes. It is the purpose of this report to describe additional analyses made by the Department of Research in Los Angeles, with some account of the methods used and the results secured.

An average pupil selected from a thousand cases may be described as follows: A child learns how to study in ten weeks, makes forty-four weeks of progress, is promoted to a grade one year above where he was failing, and thereafter makes good. The amount of progress is determined by the pupil's ability to complete the successive levels of subject-matter as defined in the Los Angeles course of study. "Making good" is determined as yet only by the report of the grade teacher and represents the pupil's status at the end of three months. Although this method of determining progress is unscientific, the fact that pupils are reported as "satisfactory" in a grade above the one in which difficulty was encountered is of considerable significance.

There is no doubt that failures in the upper grades, high school, college, technical school, and to some extent in the practical world of affairs are due to poor habits of reading. Too frequently an individual adopts a method of study which results in a memorization of what is read but which rarely includes the preparation of the material for practical use, such as analysis, classification, organization, and drawing conclusions. A number of conditions may be described which bring about this fruitless method of study.

1. The teacher's questions frequently are limited in form and scope. Even the best teachers tend to fall into habits of asking a type of question designed to locate the pupil who does not know his lesson. If a number of teachers were brought together to ask their questions in the hearing of each other, this tendency would become apparent. This has actually been done in the preparation of materials to be described later.

2. The pupil is given no intimation that his methods of reading are faulty other than the fact that he does not remember. In the days of faculty psychology, when memory was considered a special function of the mind, the relation of poor memory of what was read to reading methods was not apparent. But now, in the light of modern experimentation, we are prepared to recognize the importance of vivid impressions of the content which the reader secures and of the attitude which he takes toward what he reads. If reading for the purpose of remembering is valuable, instruction directed to the development of this ability should be emphasized. If a useful method can be devised for this purpose, variations of it may serve to develop other desirable attitudes and habits in reading.

3. The lecture method of instruction does not seem to be successful in training students how to study. It is therefore fair to ask if lectures should not be followed by supervised drill in study methods. In the beginning stages at least lectures on how to operate a typewriter may well be replaced by specific instruction and suggestions as to habits and movements which help or hinder in the operation of the machine. If teachers could agree on objectives in particular lessons, it might be possible to treat the subject of reading as a complex of skills which can be developed by practice.

This has been attempted during the past five years in special rooms for backward and misfit children in the Los Angeles schools. Thirteen types of reading are in use in these adjustment rooms. Each child is "placed" in appropriate types of reading. He begins with the one in which he is lowest, and he works his way up, step by step, until he is "even" in all. The work is self-motivated; the exercises are self-scored; the record of achievement is kept by each child at his own desk on his own score card, and the teacher keeps informed concerning his progress by means of check tests, given when the pupil feels prepared to take them.

The thirteen types of reading follow. They are motivated by the questions which are directed to the pupil.

1. How many numbers can you find per minute?
2. How many numbers can you say per minute?
3. How many words can you find per minute?
4. How many words can you say per minute?
5. How many words in sentences can you say per minute?

6. How much of what you have read can you repeat?
7. How well can you follow directions?
8. How well can you evaluate numbers?
9. How well can you define words?
- 10a. How well do you understand what you read?
- 10b. How well do you understand number problems?
11. How much of what you have studied can you remember?
12. How well can you read maps and tables?

For each grade-class level there is a book of practice exercises, the content of which is taken chiefly from books in use in the schools. These include the Riverside and the Horace Mann readers in the first and second grades, the *Tree Dwellers* in the second grade, *Robinson Crusoe* in the third grade, and geography, history, and literature books in the fourth, fifth, and sixth grades. The exercises are designed to develop and fix appropriate attitudes and habits of reading. The content varies, but the form remains the same for successively higher stages. A pupil may go on to a higher level only when he has passed thirteen tests, one corresponding to each of the foregoing types of reading.

The mental attitudes corresponding to each of these questions are difficult to name since there is no accepted terminology, but for want of better the following are suggested:

1. Alertness in perception of numbers
2. Oral reading attitude in verbal expression of numbers
3. Alertness in perception of words
4. Oral reading attitude in verbal expression of discrete words (phonetics)
5. Oral reading attitude for speed in sentence reading

In these five mental attitudes there are differences due to the form of the exercises. In the first and third the pupil must not only quickly identify the number or word read to him by someone but also keep in mind the number series and write 1 before the first number or word identified, 2 before the second, etc. In the second the emphasis is laid upon correct pronunciation and clear articulation. The reading must be sufficiently clear to enable another child or the teacher to check its accuracy. This exercise is most useful in the lower grades. It is also useful in the middle grades in the reading of fractions, decimals, and mixed numbers.

In these cases there is training in eye-span and voco-motor co-ordination. It will be noted that in the exercises described, as well as in those which follow, reading is not merely a receptive process, but each bit of reading involves active attitudes; that is, there is brought about a close co-ordination of reading with some overt activity. This yields a product which can be counted or otherwise evaluated.

6. Silent reading for speed and reproduction calls for a purposive retentive attitude for immediate application; while No. 11 requires a similar attitude but for later application (deferred recall).

7. Following directions requires a penetrating purposive attitude with attention to a certain type of detail involving the action to be carried into effect. This is interpretation in terms of immediate action.

8. Evaluating numbers requires comparison in terms of greater or less and interpretation in terms of numerical value. Exercises for the middle and higher grades are put in the following practical forms: "Which would you prefer?" or "Which serves the purpose better?"

9. Defining words by use requires a mental attitude of translation or interpretation in terms of general meaning. This meaning is generalized in a logical definition.

10. Qualitative comprehension requires a mental attitude of meaning interpretation followed by selective analysis. The answers to one or more questions following the paragraph read require a quick turn of attention toward the meanings comprehended.

11. Quantitative comprehension—that is, the reading of number problems for the purpose of setting up the solution activity—is a frequent cause of failure in arithmetic. The mental attitude of interpretation in some children frequently takes the form of spatial reference, especially in the earlier stages. At other times it refers to a logical-mathematical form in terms of which quantitative relations are evaluated.

12. Reading maps and tables involves different attitudes, dependent on the form of presentation and the type of question which motivates the activity. In locative geography it is a selective-relative attitude; in scanning for distance it is an estimat-

ing attitude which relates to terms of a unit. In reading a table of populations there is an attitude of selection for application in the solution of problems.

The types of reading represented in these rather voluminous exercise books and test papers are kept in easy perspective by means of an adjustment progress card. This card consists of 143 squares, each square representing one of the thirteen types of reading for one of the eleven grade-class levels beginning with the upper first grade. This card is kept by the pupil, and upon it he records his own progress by blocking in the square corresponding to the test successfully passed. It has been found that self-directed practice in developing reading skills toward a known and fully comprehended objective develops these skills more than four times as rapidly as they develop under the hit-or-miss methods of many classrooms.

An experiment applying the use of these materials in regular classes is now in progress and promises fruitful results. One-half of a school including 184 pupils in Grades II to V inclusive follows the new plan, and the other half follows the old plan. The adjustment half of the school spends one-half of the day on study exercises; the other half devotes its time to socialized work, including special branches, such as music, art, and sloyd. A full report of this experiment cannot be made at this time, but in passing it is worthy of note that this method of using study exercises seems to make diagnoses of mental ability more accurately than single tests, and, in addition, it differentiates with a high grade of accuracy backwardness which is remediable from mental inability.